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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/730,185  | 12/05/2000  | Zoran Falkenstein    | 56556.010200        | 8007             |
| 33717   | 7590        | 11/29/2005           | EXAMINER            |                  |
| GREENBERG TRAURIG LLP<br>2450 COLORADO AVENUE, SUITE 400E<br>SANTA MONICA, CA 90404 |             |                      | TRAN, THUY V        |                  |
|   |             |                      | ART UNIT            | PAPER NUMBER     |
|   |             |                      | 2821                |                  |

DATE MAILED: 11/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/730,185

Applicant(s)

FALKENSTEIN, ZORAN

Examiner

Thuy V. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 1, 3-4, 6-7, 17-18, 20-24.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1, 3, 4, 6, 7, 17, 18 and 20-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3, 4, 6, 7, 17, 18 and 20-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 June 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This is a reply to the Applicant's amendment submitted on September 14<sup>th</sup>, 2005. In virtue of this amendment:

- Claims 2, 5, 8-16, and 19 have been canceled;
- Claims 20-24 are newly added; and thus,
- Claims 1, 3-4, 6-7, 17-18, and 20-24 are now presented in the instant application.

#### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

*(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.*

2. Claims 1, 3-4, 6-7, 21-22, 17-18, 20, and 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Eliasson et al. (U.S. Patent No. 4,945,290) in view of Ipson (U.S. Patent No. 4,945,281).

With respect to claim 1, Eliasson et al. discloses, in Fig. 1, a dielectric barrier discharge-driven light source comprising (1) a first flat panel [1] and second flat panel [2] dielectric barriers which enclose a gas (see col. 3, lines 62-64), wherein the first flat panel barrier [1] is substantially parallel with the second flat panel barrier [2] and has length and width dimensions substantially greater than a distance between the first and second panel dielectric barriers (see col. 3, lines 46-51), (2) a first electrode [5] coupled to an outside portion of the first flat panel dielectric barrier [1] and a second electrode [6] coupled to the second flat panel dielectric barrier [2] (see Fig. 1), and (3) a plurality of stems [3] disposed between the first and second flat panel

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dielectric barriers. Eliasson et al., however, does not explicitly teach that the stems are disposed equidistantly from each other.

Ipson discloses, in Fig. 6, a first flat panel [8] and a second flat panel [7] having spacers (or stems) [9] disposed equidistantly from each other.

It would have been obvious to one of ordinary skills in the art at the time of the invention to arrange a plurality of stems between the flat panels of the light source device of Eliasson et al. in a way that the stems are disposed equidistantly from each other so as to uniformly support the panels and thus to ensure a discharge in each channel since such a configuration of the stems for the stated purpose has been well known in the art as evidenced by the teachings of Ipson (see Fig. 6; col. 4, line 66 – col. 5, line 2).

With respect to claim 3, Fig. 2 of Eliasson et al. shows the first and second flat panel dielectric barriers have a circular shape.

With respect to claim 4, the combination of Eliasson et al. and Ipson disclose all of the claimed subject matter, as expressly recited in claim 1, except for specifying that the stems be comprised of quartz. However, quartz (or quartz glass) has been well known in the art as an insulating material that can be used with minimal corrosion effect caused by the discharge gas (see prior art of record to Matsuno et al.; col. 9, lines 38-43). Therefore, for such an advantage, to make the stems of the combination of Eliasson et al. and Ipson in quartz would have been deemed obvious to a person skilled in the art.

With respect to claim 6, Eliasson et al. discloses that the second electrode [6] is a mesh (see col. 3, lines 51-54).

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With respect to claim 7, the combination of Eliasson et al. and Ipson disclose all of the claimed subject matter, as expressly recited in claim 1, except for the first and second flat panel dielectric barriers being comprised of silica. However, silica has been well known as a high dielectric-strength insulating material containing OH radicals used for absorbing UV radiation and thus provides a sufficient amount of UV radiation in the dielectric barrier discharge lamp (see Prior Art of Record to Morimoto et al. U.S. Patent No. 6,373,192 B1; Abstract, lines 3-5; col. 3, lines 25-45). Therefore, to make the first and second flat panel dielectric barriers of the combination of Eliasson et al. and Ipson in silica to enhance the absorption of the UV radiation would have been deemed obvious to a person skilled in the art.

With respect to claim 21, the combination of Eliasson et al. (Fig. 1) and Ipson (Fig. 6) disclose that each support stem is equidistant to at least two other support stems.

With respect to claim 22, the combination of Eliasson et al. (Fig. 1) and Ipson (Fig. 6) disclose that a distance between a combination of two of the support stems is equal to a distance between a different combination of two of the support stems.

With respect to claim 17, Eliasson et al. discloses, in Fig. 1, a dielectric barrier discharge-driven light source comprising (1) a first flat panel [1] and second flat panel [2] dielectric barriers which enclose a gas (see col. 3, lines 62-64), wherein the first flat panel barrier [1] is substantially parallel with the second flat panel dielectric barrier [2], (2) a first electrode [5] positioned on an outside portion of the first flat panel dielectric barrier [1] such that the first electrode [5] is positioned in a plane substantially parallel to the first flat panel dielectric barrier, (3) a second electrode [6] positioned on an outside surface of the second flat panel dielectric barrier such that the second electrode [6] is positioned in a plane substantially parallel to the

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second flat panel dielectric barrier, and (4) a plurality of support stems [3] disposed between the first and second flat panel dielectric barriers. Eliasson et al., however, does not explicitly teach a distance between a combination of two of the support stems be equal to a distance between a different combination of two of the support stems.

Ipson discloses, in Fig. 6, a first flat panel [8] and a second flat panel [7] having spacers (or stems) [9] supporting there-between such that a distance between a combination of two of the support stems be equal to a distance between a different combination of two of the support stems.

It would have been obvious to one of ordinary skills in the art at the time of the invention to arrange a plurality of stems between the flat panels of the light source device of Eliasson et al. in a way that a distance between a combination of two of the support stems is equal to a distance between a different combination of two of the support stems so as to uniformly support the panels and thus to ensure a discharge in each channel since such a configuration of the stems for the stated purpose has been well known in the art as evidenced by the teachings of Ipson (see Fig. 6; col. 4, line 66 – col. 5, line 2).

With respect to claim 18, the combination of Eliasson et al. and Ipson disclose that the stems are arranged to resist stresses placed on the first and second flat panel dielectric barriers when a pressure between the first and second flat panel dielectric barriers is other than atmospheric pressure (see Eliasson et al.; Fig. 1; col. 3, lines 47-51; col. 4, line 21).

With respect to claim 20, the combination of Eliasson et al. (Fig. 1) and Ipson (Fig. 6) disclose that each support stem is equidistant to at least two other support stems.

With respect to claim 23, Eliasson et al. discloses, in Fig. 1, a dielectric barrier discharge-driven light source comprising (1) a first flat panel [1] and second flat panel [2] dielectric barriers which enclose a gas (see col. 3, lines 62-64), wherein the first flat panel barrier [1] is substantially parallel with the second flat panel dielectric barrier [2], (2) a first electrode [5] positioned on an outside surface of the first flat panel dielectric barrier [1] such that the first electrode [5] is positioned in a plane substantially parallel to the first flat panel dielectric barrier, (3) a second electrode [6] positioned on an outside surface of the second flat panel dielectric barrier such that the second electrode [6] is positioned in a plane substantially parallel to the second flat panel dielectric barrier, and (4) support stems [3] disposed between the first and second flat panel dielectric barriers. Eliasson et al., however, does not explicitly teach that said support stems be fixed to only one of said first and second flat panel dielectric barriers.

Ipson discloses, in Fig. 7, a first flat panel [8] and a second flat panel [7] having spacers (or stems) [15] fixed to only said first flat panel [8] (via "pips" [16]; see col. 4, lines 41-44).

It would have been obvious to one of ordinary skills in the art at the time of the invention to fix the stems of Eliasson et al. to only the first flat panel dielectric barrier so as to prevent the first flat panel dielectric barrier from being sucked downwards in an irregular manner by the differential pressure across its thickness since such a fixation of the stems for the stated purpose has been well known in the art as evidenced by the teachings of Ipson (see col. 4, lines 50-51).

With respect to claim 24, the combination of Eliasson and Ipson disclose that said at least one support stem is not fixed to the other one (which is the second flat panel dielectric barrier) of said first and second flat panel dielectric barriers.

***Remarks and conclusion***

3. Applicant's arguments with respect to claims 1, 3-4, 6-7, 17-18, and 23-24 have been considered but are moot in view of the new ground(s) of rejections.

In regard to claims 1, 3, 6, and 21-22, the cited reference to Eliasson et al. discloses all claimed subject matter, as expressly recited above, except for an equidistant disposition of the stems, or each support stem being equidistant to at least two other support stems, or a distance between a combination of two of the support stems being equal to a distance between a different combination of two of the support stems. However, such a deficiency would have been obviously cured by the teachings of Ipson (see "Claim Rejections – 35 USC § 103" for details). Therefore, claims 1, 3, 6, and 21-22 are rejected as being unpatentable over Eliasson et al. in view of Ipson.

In regard to claims 4 and 7, the combination of Eliasson et al. and Ipson disclose all of the claimed subject matter, as expressly recited above, except for the stems being comprised of quartz and the first and second flat panel dielectric barriers being comprised of silica. However, quartz (or quartz glass) has been well known in the art as an insulating material that can be used with minimal corrosion effect caused by the discharge gas, and silica has been well known as a high dielectric-strength insulating material containing OH radicals used for absorbing UV radiation. Therefore, claims 4 and 7 are rejected as being unpatentable over Eliasson et al. in view of Ipson following the obviousness-rejection of claim 1.

In regard to claims 17-18 and 20, the cited reference to Eliasson et al. discloses all claimed subject matter, as expressly recited above, except for a distance between a combination of two of the support stems being equal to a distance between a different combination of two of



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the support stems. However, such a deficiency would have been obviously cured by the teachings of Ipson (see "Claim Rejections – 35 USC § 103" for details). Therefore, claims 17-18 and 20 are rejected as being unpatentable over Eliasson et al. in view of Ipson.

In regard to claims 23-24, the cited reference to Eliasson et al. discloses all claimed subject matter, as expressly recited above, except for at least one support stem being fixed to only one of the first and second flat panel dielectric barriers. However, such a deficiency would have been obviously cured by the teachings of Ipson (see "Claim Rejections – 35 USC § 103" for details). Therefore, claims 23-24 are rejected as being unpatentable over Eliasson et al. in view of Ipson.

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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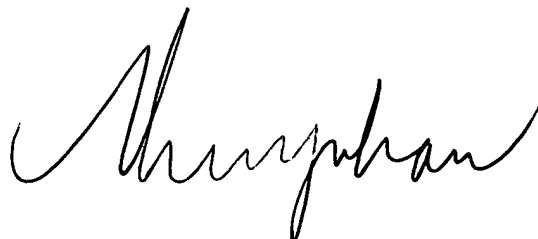
***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy V. Tran whose telephone number is (571) 272-1828. The examiner can normally be reached on M-F (8:00 AM -5:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

11/26/2005

A handwritten signature in black ink, appearing to read 'Thuy V. Tran', is written in a cursive style.

**THUY V. TRAN  
PRIMARY EXAMINER**